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ABSTRACT

Lawsuits challenging inequality in education spending have already overturned many state public-education-funding systems, and many more could be overturned. The equal-spending argument is based on unwarranted assumptions that lead to a series of foregone conclusions. A comprehensive analysis of Missouri public schools was used to study the equal-spending argument. The first unwarranted assumption is that there is a direct relationship between per-pupil expenditures and the quantity of education provided to students. The second assumption is that there is a direct relationship between spending and the quality of education. The third assumption is that spending levels also correlate to student learning and achievement. The fourth assumption is that urban school districts suffer most from unequal education expenditures. The fifth assumption is that low-spending districts pay more in taxes but receive less educational benefit. Each of these assumptions is examined in detail, and it is concluded that data from Missouri and the nation do not support these assumptions. (JPT)

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THE CASE AGAINST EQUAL SPENDING IN MISSOURI PUBLIC SCHOOLS

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THE CASE AGAINST EQUAL SPENDING IN MISSOURI PUBLIC SCHOOLS

It seems certain that almost every state in the union will eventually have a lawsuit challenging its funding system for public education. Each lawsuit will contend, in one way or another, that unequal spending among school districts constitutes a denial of equal educational opportunity for pupils in public schools. More than half of the states have already been sued on this issue. About half of those which have been sued have had their state funding plans overturned by the courts.

Curiously, although any state funding plan can be challenged for unequal spending within a state, there is no legal basis for challenging spending differences among the states. In 1990-91, the average per pupil expenditure in New Jersey was $8,449. In Utah it was $2,801, a differential of about 3 to 1.

Spending differences within states (as measured by coefficients of variation) are, on the average, about the same as they were in 1969. Spending differences among states have increased more than 30% since 1969-70. If state public school systems could be likened to large glass jars and school district per pupil expenditures to marbles within those jars, we have become so obsessed with having the marbles in each jar be of exactly the same size, we have overlooked the fact that some jars contain very large marbles and some jars very small marbles. What will we have accomplished as a nation if every school district in New Jersey spends exactly $8,449 per year on every pupil in the state while Utah spends exactly $2,801?

It seems to me that the equal spending argument is based on a set of unwarranted assumptions which naturally lead to a series of foregone conclusions. I would like to examine some of these commonplace assumptions and conclusions and, at the same time, report findings which result from what I believe to be a comprehensive analysis of Missouri public school districts for the 1990-91 school year.

UNWARRANTED ASSUMPTION #1

There is a direct relationship between per pupil expenditures and the quantity of education provided to students. The quantity of public education is first reflected in the number of professional staff relative to student enrollments and then in the richness and variety of educational programs in school districts. Because wealthy districts have more favorable pupil/teacher ratios, they also have larger numbers of curricular offerings than poor districts. Wealthy districts have rich and varied curricular offerings while poor districts have very limited curricular opportunities. Students in low spending districts therefore are deprived of curricular opportunities which would enrich their lives and provide stronger preparation for college.

This assumption, of a direct line relationship between school district spending and the amount of education provided to students, is unwarranted in the extreme. The cost of providing any given amount of public education to students varies from area to area. Cost differences result from variations in labor costs. Personnel costs are about 85% of operating costs in public education. When labor costs vary substantially from place to place, the effects on per pupil expenditures tend to be proportional.

In examining spending differences among states, we found that, after adjusting per pupil expenditures for labor costs, the differences in expenditures declined by almost 40%. The cost differences which exist between states also exist within states. Before adjusting for cost differences in Missouri, only 93 of 541 districts were spending above the average for the state. After adjusting for cost differences, we found what we would expect to find--half the districts were spending above average and half were below.

As we pointed out in our report to the Missouri state court, "There are large variations in the costs of providing public education within Missouri. In some parts of the state, a dollar's worth of education costs 80 cents, in other parts, $1.20. With these variations, a per pupil expenditure of $3,200 in one district and $4,800 in another appear quite different, when, in fact, those dollar amounts purchase about the same amounts of public education for each student." One analogy that comes to mind is the modest home in a Chicago suburb which would fetch no more than $60,000 or $70,000 on the real estate market in Springfield or Peoria, can be sold for $250,000 in Winnetka or Glencoe. It is the same home in both places, but its price, not its inherent value, shifts dramatically from one location to another.

After discussing the weak relationship between educational costs and educational resources, we turned to the assumption that high spending causes favorable staff ratios which, in turn, produces greater curricular offerings. We learned that only part of this assumption could be substantiated. There was a negative (favorable) correlation between per pupil expenditures and pupil/teacher ratios (-.451). This, however, proved meaningless because there was no significant correlation between pupil/teacher ratios and school district wealth (-.058). Districts that spent more had better ratios, but districts with low wealth (assessed valuations per student) were as likely to have favorable ratios as districts with high wealth. We then looked at school district income and found a slight relationship with pupil/ teacher ratios (.192) but the relationship was in the wrong direction. Districts with high income residents showed a slight tendency to have less favorable pupil/teacher ratios than districts with low income earners.

The foregone conclusion for this unwarranted assumption states that greater curricular

offerings result from favorable staffing ratios. Yet, in Missouri, we found the opposite to be true. Pupil/teacher ratios had a rather strong positive (unfavorable) relationship with the number of course offerings in Missouri public high schools (.415). Districts with favorable ratios were more likely to have fewer curricular offerings than districts with unfavorable ratios. Those who work with public school data will quickly recognize one of the reasons for this. Small districts, unable to achieve economies of scale, have, by necessity, small pupil/teacher ratios. Small districts, for the same reason, have fewer curricular offerings. Huge high schools have huge numbers of curricular offerings. Small high schools have small numbers of curricular offerings. None of this is related to spending. In Missouri, there was no significant positive relationship between per pupil expenditures and the number of approved high school units offered to students (-.111). The lowest spending school district in Missouri, a rather large district (Republic), provided a greater number of high school curricular offerings than any of the high spending suburban school districts in St. Louis County. There was, however, a significant relationship between the number of course offerings and the magnitude of school enrollments (.407). The richness and variety of curricular offerings in Missouri public schools is not a function of school spending, but a function of school size. Further, there has never been any reason to believe that a large number of curricular offerings in a school is, in any way, related to the quality of education provided to students by that school.

UNWARRANTED ASSUMPTION #2

There is also a direct line relationship between the cost of public education and the quality of education provided to students. The quality of public education is reflected primarily in the quality of the teaching staff. High spending districts pay high teachers' salaries and therefore attract and retain high quality teachers--teachers who are prepared in better colleges and universities, who have higher levels of training, who have more teaching experience and who are, therefore, paid higher salaries. High salaried teachers, who are good teachers, work in high spending districts while low salaried teachers, who are not good teachers, work in low spending districts. It therefore follows that students learn more from high-salaried teachers than from low-salaried teachers.

This assumption is only partially unwarranted. High spending districts do, in fact, employ high salaried teachers. Among the 50 states, the correlation between per pupil expenditures and average teachers' salaries is an overwhelming .829. Teachers' salaries alone account for almost 70% of the variations in per pupil expenditures. In Missouri, after adjusting for district size, the correlation between these two variables was .490. What these relationships really tell us is that average teachers' salaries are a very reliable measurement

of the cost of labor for the area. Nationally, the correlation between average teachers' salaries and the salaries of all other workers in the same state is .905. But, many states which have very high teachers' salaries (Alaska, California, New York) have very low rates of student achievement and many states which have very high levels of student achievement (Idaho, North and South Dakota, Utah) have very low teachers' salaries. Nationally, the relationships between teachers' salaries and student achievement variables (graduation rates, drop-out rates, test scores) are insignificant. Nor are there any significant relationships between teacher experience and student achievement variables. Relationships between levels of teacher training and student achievement variables are actually significant, but negative--the greater the level of teacher training, the lower the level of student achievement.

These national relationships were substantiated by relationships in Missouri. Teachers' salaries and teacher experience had slightly negative relationships with student graduation rates, drop-out rates, and attendance rates. Although student test scores were not provided in Missouri, there is every reason to believe that those scores too would be unrelated to teacher earnings and teacher experience.

UNWARRANTED ASSUMPTION #3

Because spending levels control both the quantity and quality of public education, those levels must also control student learning. High per pupil expenditures produce more and better education. It goes without saying that more and better education produce greater student learning. It therefore must follow that students in high spending districts learn more than students in low spending districts.

I will not discuss here the dozens of studies which show no significant relationships between educational spending and student achievement. My analysis of the 50 states and the District of Columbia show no significant relationship between per pupil expenditures and national math scores (.001) or student graduation rates (.003) or student drop out rates (.004). Student test scores are top secret in Missouri, but they were entrusted to one Missouri professor (Alspaugh) who found no significant relationship between district spending and student test scores. My own analysis showed no significant positive correlations between per pupil expenditures and student graduation rates (-.025), average daily attendance rates (-.081) or state Department of Education ratings (-.049). In Missouri, as in the nation, as in almost every study which has been conducted on the question, the relationship between educational spending and student achievement remains breathtakingly insignificant.

UNWARRANTED ASSUMPTION #4

Urban school districts suffer most from unequal expenditures among public school districts. Urban schools have great needs and insufficient financial resources. If expenditures among public school districts within states were equalized, urban school districts would receive more money and would be better able to meet the needs of their students.

Almost without exception, large urban public school districts have per pupil expenditures which are well above the average for the states in which they are located. The average spending levels for the ten largest traditional urban school districts in the United States (New York, Los Angeles, Chicago, Philadelphia, Houston, Detroit, Dallas, San Diego, Baltimore and Memphis), all of which are the largest or second largest districts in their states, are 20% above the average for the states in which those districts are located. Equalization of expenditures would result in drastic resource reductions for these districts.

In Missouri, court desegregation decisions had resulted in the two largest urban districts having very high per pupil expenditures. The St. Louis public schools (in 1990-91) spent 47% above the state average while Kansas City spent more than 100% above the state average. The per pupil expenditures for St. Louis and Kansas City were $6,188 and $8,693 while the average for the state was $4,215. Kansas City was the highest spending public school district in Missouri. St. Louis ranked 8th. These two districts enrolled 10% of all the students in the state, but had 17% of all the state's educational resources. Taken together their per pupil expenditures were 170% of the state average. They were, in very large part, responsible for spending disparities within the state. The coefficient of variation for per pupil expenditures in Missouri was .28 in 1989-90. When Kansas City and St. Louis were removed from the equation, the coefficient declined to .20. In a lawsuit where the court was asked to both equalize expenditures and provide for city schools, we found that almost 30% of spending disparities were attributable to high spending in those city schools.

Those who support equalization in the name of urban education insist that urban students would do better if their schools enjoyed spending levels comparable to those in suburban districts. We had the opportunity to test this assumption in Missouri.

We ran a comparison between the highest spending district in Missouri, an urban district (Kansas City, $8,693) and the lowest spending district (Republic, $2,379). We found that Kansas City outspent Republic at a rate of 3.65 to one, had assessed valuations 2.5 times higher, sustained tax rates 3 times greater, had resident income levels 9% higher, teachers' salaries 35% greater and pupil/teacher ratios 34% better. In spite of all of this, Republic's test scores were 25% higher, their graduation rates were 76% better and their student

attendance rates were 13% greater than those of Kansas City. Here again an unwarranted assumption, along with its foregone conclusion, collapsed under the scrutiny of even the most casual kind of examination.

UNWARRANTED ASSUMPTION #5

Low spending districts have low wealth (as measured by assessed valuations per pupil) and high tax rates. Sometimes such tax rates are two or three times as high as those in high spending districts. Still per pupil expenditures are well below average in these "poor" districts. All of this is unfair because "poor" districts "pay more" and "receive less."

There has been an ongoing assumption that public school districts with low wealth have high tax rates. It began with Serrano v. Priest in California and the now famous comparison between the Baldwin Park and Beverly Hills school districts. Baldwin Park had high tax rates and low expenditures. Beverly Hills had low tax rates and high expenditures. No analysis was made of the other 1,000 school districts in California. No one ever explained to the court that tax rates, taken in isolation, are meaningless. The rates have to be applied against a property tax base which is determined by property assessment practices. These practices vary enormously from area to area within a state. But even if assessment practices were uniform, we could not judge the fairness of school taxes unless we knew how those taxes related to the income of each person who paid them. Property taxes are not paid from property values; they are paid from income.

Assessed values and actual values of properties have an imperfect relationship. The value of property owned and the amount of income earned by the property owner is another imperfect relationship. In Missouri, the correlation between assessed valuations per student and resident income levels was .515--a relationship which is far from perfect. Further, the assessed valuation per student is greatly influenced by the proportion of the population enrolled in public schools. In Massachusetts, only 13.9% of the state's population is enrolled in public schools. In Utah, the proportion is 25.8%. If Utah had the same small proportional enrollment as Massachusetts, its per pupil expenditure would be more than $5,000 rather than $2,801. These confounding variables are rarely examined by those who wish to equalize expenditures among American public school districts.

But let us turn to Missouri and examine the assumption that low wealth districts have higher tax rates and low wealth residents pay "more" for public education. Of the 270 school districts in Missouri which were below the median per pupil expenditure for the state, 48 had above average tax rates. Only about one district in six had low expenditures and high tax rates. There were only 93 districts of 541 in Missouri which had above average per pupil

expenditures. But 75% of those 93 districts had above average tax rates. So now we learn that high rates and low expenditures are the exception, not the rule in Missouri. Perhaps the same was true in California at the time of Serrano v. Priest.

In order to focus on this issue, we ranked the 50 districts in Missouri with the lowest wealth, the 50 districts with the lowest income and the 50 districts with the lowest per pupil expenditures. The results were surprising. The average school tax rate in Missouri is $2.67. In the 50 districts with the lowest wealth, the average rate was $1.41 (the state mandated minimum is $1.25). In the 50 lowest spending districts, the average rate was $1.64. In the 50 lowest income districts, the average was $2.07. We found that no matter what the measurement for "poor" districts (wealth, income, or spending), all public school tax efforts were well below average. The low wealth districts taxed themselves at only 53% of the state average and provided only 11% of district expenditures from local sources. Low income districts did better, providing 21% of expenditures from local sources. Low spending districts provided 21.5% of school district expenditures from local sources. All three groups had graduation rates of between 78% and 81% (the state average is 72.5%), all had annual drop-out rates below the state average, and all had average daily attendance rates above the state average.

We wanted to know if "poor" districts in Missouri did in fact "pay more" for public education. We found that they do not. The average annual contribution per pupil from local sources for the 50 lowest wealth districts in Missouri was $333. The average contribution from local sources for "wealthy" districts in St. Louis County was over $3,400. Now St. Louis suburban residents earn more than people in low wealth districts, but they do not earn 10 times as much. When the local tax contribution for schools was taken as a proportion of resident income, we found that the local school tax in Missouri is slightly progressive--that is, high income earners pay a higher proportion of their earnings for public schools through local taxes than low income earnings. If revenue from state sources were included, total school taxes in Missouri would be highly progressive.

Those who favor equalization have always asserted that levels of per pupil expenditures are determined by community wealth and income. In Missouri we learned that tax rates, not wealth or income, was the decisive variable in determining expenditure levels. In regression analysis, we found that 64% of the variation in per pupil expenditures was attributable to wealth, income and tax rates. Our regression equation showed that 48% of that variation resulted from tax rates. That number rose to 61% when wealth was introduced into the equation and to 64% when income was added. While it has long been assumed that wealth and income

control educational expenditures, we found in Missouri that taxpayer effort was the most potent of the three variables.

CONCLUSION

The equalization argument in educational finance is ill-conceived and unworkable. After 25 years of litigation, it has produced no success stories. Where taken seriously, as in California, New Jersey and Texas, it has produced chaos, confusion, and financial deficiencies in public education.

Equalization ignores the natural market for public education which permits the efficient variation of costs from one area to another. It undermines grass roots democracy by asserting that no community should have the right to purchase more public education than any other. It has never troubled to find the true sources of inequalities in American public schools but, instead, has always rested its case on quick and easy measurements of school district expenditures.

But the most serious indictment of the equalization movement is its belief that 50 state legislatures, elected by the people, all of which have absolute, final and plenary power in public education, should not be entrusted with major financial policies for public schools. Instead, the movement prefers that these policies be placed in the hands of the courts, guided only by the arguments of attorneys, supported only by the opinions of university experts. In this regard, the equalization movement attempts to wrest control of public education from the public and place it in the hands of a few people who know what is best for all of us. This alone makes the equalization movement worth resisting--even it it were a good idea.